



INSTRUCTIONAL NOTES

PRINCIPLE 4 – QUALITY RIGHT FIRST TIME

POWERING AMBITIONS

P4 – QUALITY RIGHT FIRST TIME

1. Quality Right First Time for product and services will ensure fulfillment of external and internal Customers satisfaction.
2. It is a coordinated activity to direct and control an organization with regards to quality of products and services.

INITIATIVES

- QMS Certification
- QMS Maintenance and Auditing
- 6 Sigma
- Poka Yoke

QUALITY MANAGEMENT SYSTEM

WHAT IS QUALITY MANAGEMENT SYSTEM?

ISO 9000 : 2000

- A management system to direct and control an organisation with regard to quality.

Definition :

Management system: System to establish policy and objectives to achieve those objectives

Organisation: A group of people and facilities with an arrangement of responsibilities, authorities and relationships

8 QUALITY MANAGEMENT PRINCIPLE



QUALITY CAN ONLY BE ASSURED IF IT IS MANAGED

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QUALITY MANAGEMENT SYSTEM

Each companies is to be certified and to comply to the International Management System (IMS). The objective of IMS certification is to focus on satisfying customers requirement as well as other stakeholders through systematic and structured approach business process.

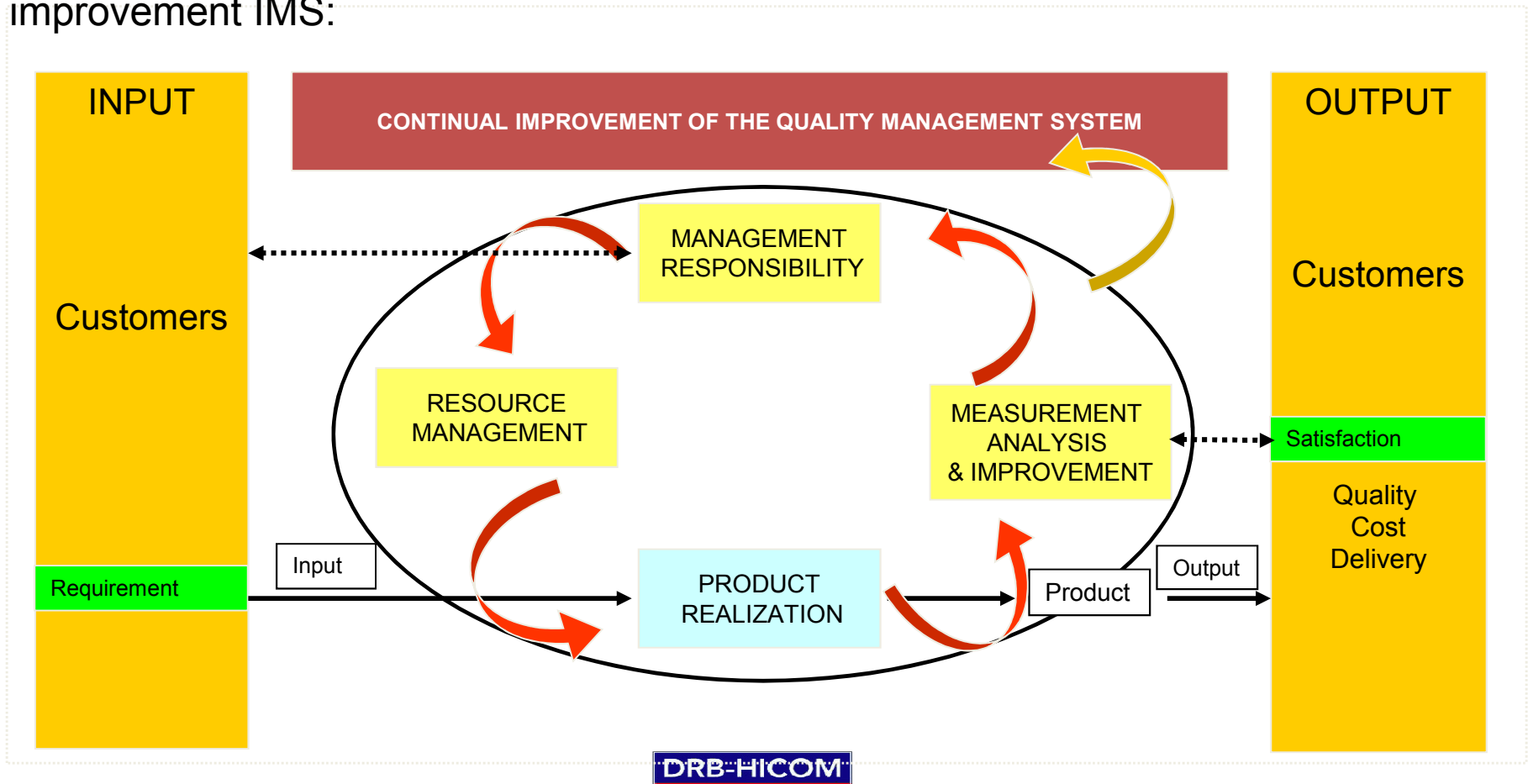
QUALITY MANAGEMENT SYSTEM

Types of IMS Certification are :

- i) TS 16949 - An automotive sector Quality Management System (QMS) requirement which defines the system requirement for any organization in the automotive supply chain.
- ii) ISO 14000 – An Environmental Management System (EMS) requirement which defines environmental issues for organization in the global market place.
- iii) ISO 18000 - An Occupation Health and Safety Assessment Series (OHSAS) for health and safety management systems. It is intended to help an organizations to control occupational health and safety risks.

QUALITY MANAGEMENT SYSTEM

Establishment of an effective IMS requires an organization to set up a management system that conform to all requirements stipulated in the IMS standard. The following shows the established model of continuous improvement IMS:



SIX SIGMA

Overview

1. Six Sigma is a methodology that uses data and statistical analysis to measure and improve a company's operational performance by reducing variation.
2. Six Sigma Organization refers to an organization that is actively working to build the themes and practices of Six Sigma into its daily management activities, and is showing significant improvements in process performance and customer satisfaction.

SIX SIGMA

Basic Model of 6 Sigma

DEFINE	MEASURE	ANALYZE	IMPROVE	CONTROL
<ul style="list-style-type: none">• Define business opportunities• Define customer critical requirements• Define and map the process• Define the problems• Define the deliverables	<ul style="list-style-type: none">• Validate measurement system• Measure the performance• Manage data collection• Determine process performance	<ul style="list-style-type: none">• Establish product and process capability• Identify variation sources• Screen potential causes	<ul style="list-style-type: none">• Discover variable interrelations• Develop and execute solutions	<ul style="list-style-type: none">• Discover or revise process control system and charts• Verify and monitor improvements

SIX SIGMA

Key Drivers of 6 Sigma (Continue)



POKA YOKE or ERROR PROOFING

“Poka Yoke” means *“Fail safing”* or *“Mistake proofing”*

‘YOKE’RU is TO AVOID
‘POKA’ is INADVERTENT MISTAKES

- Developed by Dr. Shigeo Shingo.
- It is a simple technique to avoid simple human error at work.
- Part of “Zero Defect Quality Control”.
- Identifying defects at the source lowers the cost.



POKA YOKE or ERROR PROOFING

DEFINITION

A device which prevents a process from

- making an error or → **prediction**
- passing a defect to user → **detection**

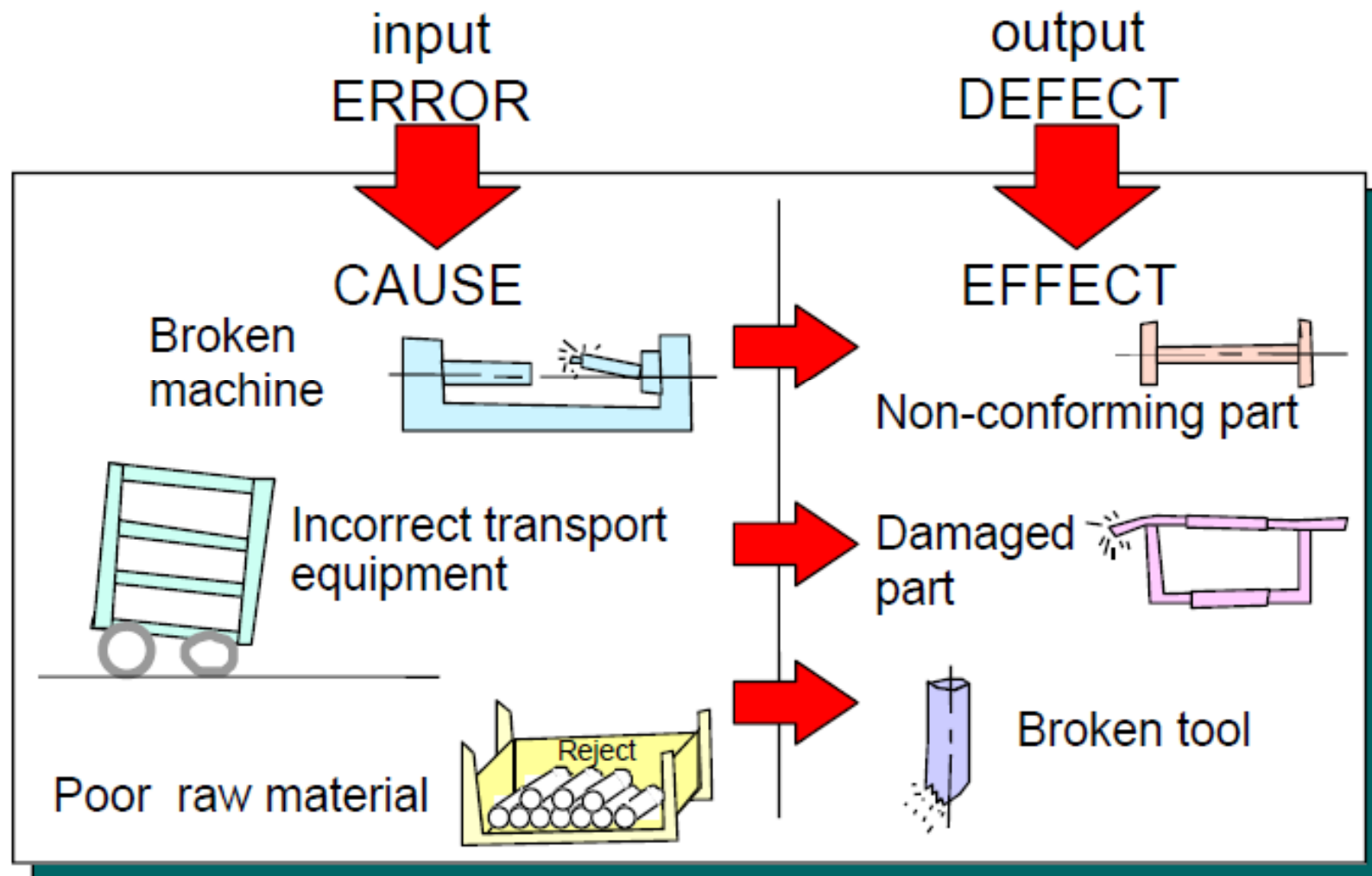
When a defect is predicted or an error detected:



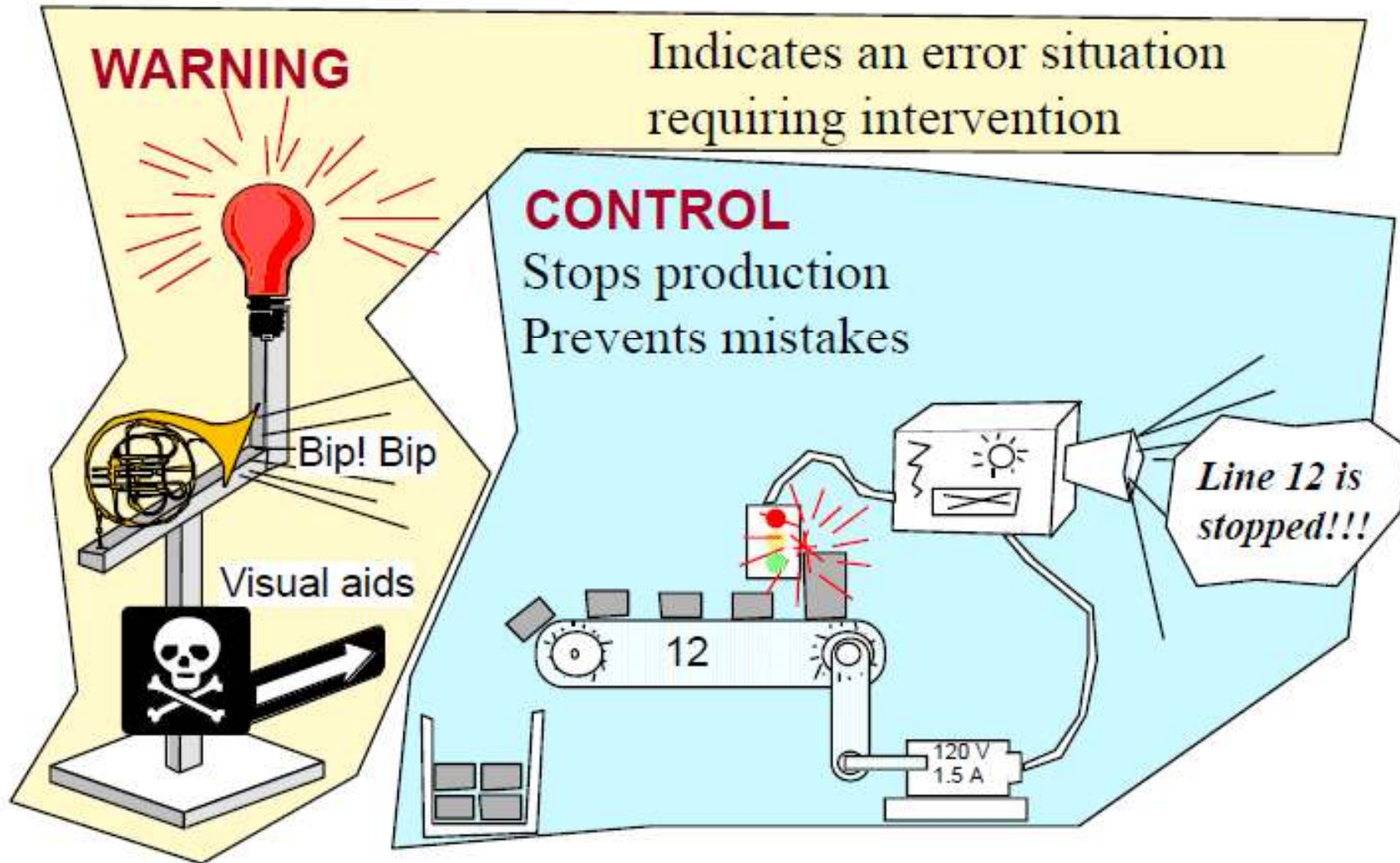
- the process is **shut down** or
- a **control** prevents going ahead or
- a **warning** is sent

P4 – QUALITY RIGHT FIRST TIME

Errors are the root causes – Defects are symptoms



Two types of Poka-Yoke



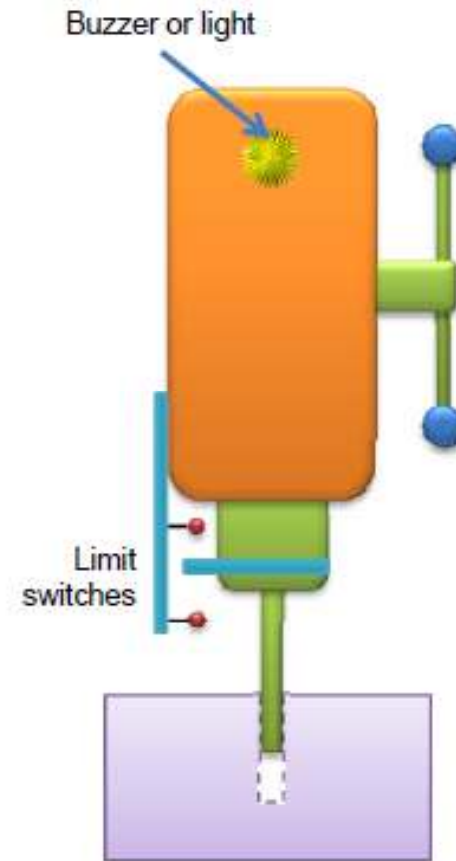
Drill Poka Yoke



No Poka Yoke



Stop Poka Yoke



Warning Poka Yoke

AMS 9 PRINCIPLES

